

CONTRIBUTION TO A KNOWLEDGE OF THE ARACH-
NIDAN FAUNA OF BRITISH NEW GUINEA.

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(*Contribution from the Australian Museum.*)

(Plate VII.)

Towards the close of last year Mr. C. de Vis, M.A., Curator of the Queensland Museum, kindly placed in my hands, for the purposes of determination, and in the event of new species, description, a collection of Papuan Arachnida obtained in British New Guinea by Mr. A. Giulianetti, under the direction of His Excellency Sir Wm. MacGregor, M.D., K.C.M.G. Unfortunately many of the specimens were so damaged that it was impossible to determine them, and consequently much material had to be rejected. The majority of the specimens obtained were forms already known to science, and these are all enumerated below. Of the species new to science, the most interesting is that of a Trap-door Spider of the subfamily *Masteriæ*, and for which I propose a new genus: *Antrochares*. E. Simon in his great work, "Histoire Naturelle des Araignées,"* records two genera in this sub-family, namely: *Masteria*, L. Koch, and *Accola*, E. Simon, to neither of which the species under consideration can be assigned. Thus, there are now known three genera of six-eyed *Avicularidæ*, and these are distributed as follow: *Masteria*, the island of Ovalau; *Accola*, Philippines and Venezuela; *Antrochares*, New Guinea.

* Vol. i., 2nd Ed., p. 189.

Order ARACHNIDA.

Suborder ARANEÆ THERAPHOSÆ.

Family AVICULARIIDÆ.

Subfamily PACHYLOMERÆ.

Genus CONOTHELE, Thor.

1. CONOTHELE MALAYANA, Dolesch.

Loc.—Neneba, Mount Scratchley, between 4,000 and 5,000 feet, July, 1896.

Subfamily BARYCHELINÆ.

Genus IDIOMMATA, Auss.

2. IDIOMMATA RETICULATA, L. Koch.—Only one specimen, and that immature, but there can be no doubt as to its identity, as it agrees so closely with Koch's figure and description.

Loc.—Mount Scratchley, at 12,200 feet.

3. IDIOMMATA CRASSIPES, sp.nov.

(Plate VII., fig. 1.)

♀. Cephalothorax 8·3 mm. long, 7·5 mm. wide; abdomen 11·2 mm. long, 7·5 mm. wide.

Cephalothorax yellow-brown, convex, clothed with short, strong, black hairs. *Caput* arched, truncated in front, where it is margined with a broad, pale flesh-coloured band. *Clypeus* broad, normal grooves distinct, junction of cephalic and thoracic segments indicated by a deep transverse indentation or cleft. *Marginal band* broad.

Eyes elevated on a prominent tubercle; those comprising the front row are large and separated from each other by a space equal to about twice their individual diameter; those of the second row are equal in size, but are separated from their anterior neighbours by about one and one-half their individual diameter, and from each other by a space equal to about one diameter; the third series of eyes are small, contiguous, arranged in two pairs

of which the lateral ones are sensibly the largest and are placed obliquely to the rear of those comprising the median row; the four large eyes are of a grey tint, and the four smaller ones of a pearl-grey lustre, and each of the latter is encircled with a black ring.

Legs strong, yellow-brown, with dark brown annulations, thickly clothed with coarse black hairs, and armed with long, strong spines; each tarsus is terminated with a scopula, has two claws, and each of the latter is armed with two teeth. Relative lengths of legs : 4, 1, 2, 3.

Palpi similar in colour and armature to legs; each palpus is terminated with a claw, and scopula.

Palces long, strong, projecting well forward, dark mahogany-brown, clothed at apices and inner margins with long, coarse, black hairs; the outer margin of the furrow of each falx is fringed with long, red hairs, and the inner margins are each armed with a row of four teeth. *Fangs* long, glossy black.

Maxillae long, strong, divergent, glossy, yellow-brown, moderately clothed in front with short black hairs; inner margins thickly fringed with long red hairs.

Labium concolorous, fringed at apex with coarse dark hairs.

Sternum concolorous also, oval, clothed laterally with moderately long, coarse, black hairs.

Abdomen ovate, overhanging base of cephalothorax, dark brown, thickly clothed with short brown hairs.

Only one specimen was obtained, and that was immature.

Loc.—Boirave, at 1,500 feet, July, 1896.

4. IDIOMMATA SORDIDA, sp. nov.

♀. Cephalothorax 5·2 mm. long, 4 mm. broad; abdomen 5·2 mm. long, 4·2 mm. broad.

Cephalothorax yellow-brown, convex, clothed with fine yellowish hairs. *Caput* arched, truncated in front. *Clypeus* broad, normal grooves distinct; at the junction of the cephalic and thoracic segments there is a deep transverse indentation or cleft. *Marginal band* rather narrow.

Eyes elevated on a prominent dark brown tubercle, and arranged in similar order to those of *I. crassipes*; the four large eyes are shining black and the four smaller ones of a pearl-grey lustre, and each is encircled with a black ring.

Legs strong, yellow-brown, clothed with grey hairs, and armed with short, strong, black spines; each tarsus is terminated with a scopula and two black claws, and each of the latter is armed with two teeth near its base.

Palpi long, strong, similar in colour and armature to legs.

Falces long, strong, projecting well forward, yellow-brown, clothed at apices and inner margins with long, coarse grey hairs.

Maxille divergent, yellow-brown, the upper surfaces clothed with moderately long black hairs, and the inner margins fringed with long tawny hairs.

Labium concolorous, broad, and clothed with moderately long, coarse black hairs.

Sternum concolorous also, oval, broadest towards posterior extremity and clothed with coarse black hairs.

Abdomen obovate, moderately projecting over base of cephalothorax, dark brown, almost black, clothed with short grey hairs.

Epiygne a simple transverse slit.

Loc.—Neneba.

Subfamily MASTERIÆ.

Genus ANTROCHARES, gen.nov.

Cephalothorax moderately arched, longer than broad, median depression round. *Caput* high, arched.

Eyes six, in two groups, the anterior row containing two, and the posterior four; the lateral eyes are large, oval, and oblique; median eyes small.

Maxillæ long, strong, divergent, inner margins slightly hollowed out towards centre.

Labium rather broader than long, convex; apex rounded off.

Legs long, thin; tarsi three-clawed, the two longest only serrated; scopula absent.

Palpi long, thin, terminal claw pectinated.

Mamille short.

5. ANTROCHARES MACGREGORI, sp.nov.

(Plate VII., figs. 2, 2a.)

♀. Cephalothorax 1·7 mm. long, 1·5 mm. broad; abdomen 2·5 mm. long, 1·4 mm. broad.

Cephalothorax convex, sparingly clothed with yellowish hairs. *Caput* strongly arched at the centre, obtusely truncated in front. *Clypeus* broad, convex, normal grooves and indentations distinct, median depression at junction of cephalic and thoracic segments deep and round. *Marginal band* broad.

Eyes six, seated on a somewhat quadrangular, tubercular eminence, and arranged in two groups of 2 and 4 respectively; the lateral eyes are large, oval, and oblique, and the median pair are small and round. The two front eyes are separated from each other by a space equal to their individual width, and are slightly hollowed towards the centre of their inner margins; the posterior pair are oval, diverge outwards, and are separated from each other at their greatest extremity by twice their individual length; the median pair are placed closely together, but are not contiguous; the latter almost touch the posterior pair at their base.

Legs long, thin, tapering, yellow-brown, clothed with long yellowish hairs, and armed with strong spines; each tarsus is furnished with two long and powerful pectinated claws, and one small one. Relative lengths: 4, 1, 2, 3.

Palpi long, similar in colour and armature to legs, and each terminating with one pectinated claw.

Falces long, powerful, projecting well forward, yellow-brown, and clothed in front and on the inner margins with long, coarse, yellowish hairs; outer margins fringed with long tawny hairs.

Maxille yellowish, long, powerful, divergent, apices truncated, inner margins slightly hollowed out at the centre, the surfaces shining, and sparingly clothed with yellowish hairs.

Labium concolorous, convex, broader than long, rounded off at apex.

Sternum concolorous also, shield-shaped, smooth, shiny, sparingly clothed with yellowish hairs.

Abdomen ovate, moderately projecting over base of cephalothorax, yellowish-brown, densely clothed with long, coarse, yellowish hairs.

Epigyne a simple transverse slit.

Mamillæ cylindrical, in two pairs, and abbreviated; of these the second pair are somewhat the longest.

Loc.—Neneba, Nov., 1896.

This interesting species makes the third genus now known of the six-eyed *Ariculariide*. In 1873 L. Koch established the first under the name of *Masteria*, and in 1889 E. Simon founded another, for which he proposed the name *Accola*. Of these the first was founded on a single species obtained on the Island of Ovalau, and was described by L. Koch as *Masteria hirsuta* in his monograph "Die Arachniden Australiens," pp. 457-459, Tab. xxxv., figs. 5-5d. The genus and species established by E. Simon as *Accola lucifuga* were described in Ann. Soc. Ent. France, 1889, p. 191.*

Suborder ARANEÆ VERÆ.

First Section ARANEÆ VERÆ CRIBELLATÆ.

Family ULOBORIDÆ.

Genus ULOBORUS, Latr.

6. ULOBORUS FLAVOLINEATUS, sp. nov.

(Plate VII., figs. 3, 3a.)

♀. Cephalothorax 5·9 mm. long, 4 mm. broad; abdomen 12·5 mm. long, 4·2 mm. broad.

Cephalothorax moderately convex, sparingly clothed with yellowish pubescence. *Caput* high, arched, yellow-brown. *Clypeus* moderately convex, median area and margins yellow-brown, and the intervening lateral bars pale yellow; radial grooves distinct, and the median depression deep and strong. *Marginal band* narrow.

* Hist. Nat. des Araignées, 2nd Ed., Vol i., 1892, pp. 189-190.

Eyes black, arranged in two curved rows of four each, the curvature directed forwards; the eyes comprising the anterior row are somewhat smaller than those of the second.

Legs long, strong, with yellowish and yellow-brown annulations, moderately clothed with short, dark brown hairs, and armed with short, strong, dark brown spines. Relative lengths: 1, 4, 2, 3.

Palpi long, similar in colour and armature to the legs.

Falces long, strong, divergent at apex, moderately clothed with long dark hairs; the margins of the furrow of each falx are armed with a series of teeth, those of the inferior margin being smaller than those of the superior; the superior margins are also furnished with a dense brush of moderately long, dark hairs.

Maxille convex, long, strong, dark brown, somewhat club-ended, inclining inwards, clothed with long, dark brown hairs, the inner margins furnished with dense dark brown scopulæ.

Labium long, convex, apex rounded-off, compressed at base, yellowish, clothed with long dark brown hairs.

Sternum of normal shape, dark brown, with a narrow lateral band of pale yellow; the surface glossy, clothed in the median area with coarse dark hairs, and laterally with short pale yellowish pubescence.

Abdomen long, cylindrical, convex, moderately overhanging base of cephalothorax; the colour is dark brown generally, though somewhat lighter in front; on the inferior surface there is a long, narrow median groove; the latter is shallow, pale yellow, somewhat the broadest in front, and runs the entire length of the abdomen.

Epigyne a large tubercular eminence, with two lateral apertures.

Cribellum transverse, narrow, entire.

Hab.—Boirave, at 1,500ft.; July, 1896; and Rossel Island, Louisiade Group.

Family DICTYNIDÆ.

Genus AMAUROBIUS, C. Koch.

7. AMAUROBIUS INSIGNIS, L. Koch; (immature).

Loc.—Mount Scratchley, at 12,200ft.; Sept -Oct., 1896.

8. AMAUROBIUS INORNATUS, L. Koch.

Loc.—Neneba, 9th Nov., 1896.

Second Section ARANEE VERE ECRIBELLATÆ.

Family THERIDIIDÆ.

Genus ARGYRODES, E. Sim.

9. ARGYRODES GRACILIS, L. Koch.

Loc.—Boirave, at 1,500ft.; July, 1896.

Genus THERIDION, Walck.

10. THERIDION TEPIDARIORUM, C. L. Koch.

Loc.—Neneba, Nov., 1896.

Family ARGIOPIDÆ.

Subfamily TETRAGNATHINÆ.

Genus TETRAGNATHA, Latr.

11. TETRAGNATHA RUBRIVENTRIS, Dol.

Loc.—Boirave and Rossel Island.

12. TETRAGNATHA CYLINDRICA, Walck.

Loc.—Rossel Island.

13. TETRAGNATHA SERRA, Dol.

Loc.—Neneba, Nov., 1896.

Genus ARGYROPEIRA, Emer.

14. ARGYROPEIRA CELEBESIANA, Walck.

Loc.—Mount Scratchley, at 12,200ft., and Tamata Station, Mambare River.

15. ARGYROPEIRA GRATA, Guér.

Loc.—Panneata.

Subfamily NEPHILINÆ.

Genus NEPHILA, Leach.

16. NEPHILA MACULATA, Fab.

Loc.—Neneba, Mount Scratchley, at 4,000 and 5,000ft; Mount Scratchley, at 12,200ft.

17. NEPHILA MACULATA, Fab., var. WALCKENÆRII, Dol.

Loc.—Mount Scratchley, at 12,200ft.

18. NEPHILA MACULATA, Fab., var. PENICILLUM, Dol.

Hab.—New Guinea.

Subfamily ARGIOPHINÆ.

Genus ARGIOPE, Aud. et Sav.

19. ARGIOPE ÆTHEREA, Walck.

Loc.—Mount Scratchley, at 12,200ft.; and Rossel Island.

20. ARGIOPE ÆTHEREA, Walck., var. DEUSTA, Thor.

Loc.—Panneata, Louisiade Group.

21. ARGIOPE ÆTHEREA, Walck., var. ANNULIPES, Thor.

Loc.—Mount Scratchley, at 12,200ft.

22. ARGIOPE ÆMULA, Walck.

Loc.—Mount Scratchley, at 12,200ft., 3rd July, 1896; Vanapa Valley, the river of which rises in the Owen Stanley Ranges and flows into Redscar Bay, March, 1897; and Panneata.

23. ARGIOPE PICTA, L. Koch.

Loc.—Tamata Station, Mambare River, and Neneba.

Genus CYRTOPHORA, E. Sim.

24. CYRTOPHORA MOLUCCENSIS, Dol.

Hab.—New Guinea.

This species is very variable, both in point of size and colouration.

25. CYRTOPIORA VIRIDIPES, Dol.

Loc.—Panneata.

26. CYRTOPIORA SIMONI, sp. nov.

(Plate VII., figs. 4, 4a.)

♀. Cephalothorax 8.2 mm. long, 6.3 mm broad; abdomen 14.9 mm. long, 8 mm. broad.

Cephalothorax convex, pale yellowish, hairy. *Caput* moderately high, arched, truncated in front, clothed with silvery pubescence. *Clypeus* broad, deeply indented at centre, radial grooves indistinct. *Marginal band* narrow.

Eyes black and disposed in three groups; of these, those comprising the median series are the largest; the anterior median pair are separated from each other by a space equal to fully twice their individual diameter; the posterior median pair are separated from their anterior neighbours by a space equal to fully three times their individual diameter, and from each other by about twice their diameter; lateral eyes oblique, and contiguous, minute, and separated from the median group by about five times their individual diameter.

Legs long, strong, tapering, yellow-brown, moderately hairy, and armed with strong black spines; tarsi black. Relative lengths: 1 = 2, 4, 3.

Palpi short, similar in colour and armature to legs.

Falces long, yellowish, arched, divergent at apex; the margins of the furrow of each falx are each armed with a row of four teeth.

Maxille short, broad, divergent, arched, furnished with long black bristles, yellow-brown except at inner margins and apices, which are pale yellowish.

Labium concolorous, short, broad, arched, and rounded off at apex.

Sternum shield-shaped, arched, dark brown, but with a broad median, longitudinal band of yellow, commencing in front, and terminating near to posterior extremity; on each side there are

three tubercles, and at the posterior extremity one; the surface is moderately clothed with fine dark pubescence, and long black bristles.

Abdomen oblong-ovate, projecting over base of cephalothorax, and furnished with two tubercles near anterior extremity, the inner angles of which are of a dull brownish colour, and the outer pale yellowish, and densely clothed with silvery pubescence; the general colour is tawny, relieved by fine dark brown markings, and the upper surface and sides are ornamented with symmetrical patches of silvery pubescence; on the superior surface of the abdomen there are six strongly defined punctures, the first pair of which are the largest, and are broader than long; these are situated towards the middle of the abdomen, and are separated from each other by about 3 mm; the second pair are separated from the latter by a space equal to about $2\frac{1}{2}$ mm., and from each other by about 2 mm.; the third pair are separated from the second by a space slightly in excess of that dividing the first and second pairs, and again from each other by about 2 mm.; in addition to the three series of punctures enumerated there is also a small and exceedingly minute pair placed midway between but a little above the two punctures constituting the second pair; the inferior surface is dark brown, but is relieved by two lateral, slightly curved longitudinal bands of pale yellow; between those bands there is a series of eight pale yellowish spots arranged in pairs; both the bands and spots are clothed with silvery adpressed pubescence; at the sides and a little to the front of the spinnerets there are two rather large patches of pale yellow, and these are also clothed with silvery pubescence.

Epigyne a small transversely oval, dark brown tubercular eminence, the upper tip of which is slightly overhanging, and the lower sinuous in outline and deeply cleft at centre; the groove is deep and transverse.

Loc.—Neneba, Mount Scratchley, between 4,000ft. and 5,000ft.; November, 1896.

Individuals of this species vary in intensity of colouration, ornamentation and size. The specimen described was the largest

of the series collected. I have dedicated this species to my esteemed correspondent, Mons. E. Simon.

27. *CYRTOPHORA ALBO-PUNCTATA*, sp. nov.

(Plate VII., fig. 5.)

♀. Cephalothorax 10·3 mm. long, 8 mm. wide; abdomen 16·8 mm. long, 11·7 mm. wide.

Cephalothorax convex, dark brown, hairy. *Caput* moderately high, arched, truncated in front, the surface and sides clothed with fine short hoary hairs. *Clypeus* dark brown, broad, arched, deeply depressed at centre, clothed with moderately long hoary hairs; radial grooves indistinct. *Marginal band* pale yellowish.

Eyes dark brown; those forming the median group are seated on a tubercular eminence, which is nearly twice as long as it is broad; of this group the anterior eyes are separated from each other by a space equal to rather more than twice their individual diameter, and the posterior pair by about two diameters; lateral eyes are seated obliquely upon small tubercles, but are not contiguous.

Legs long, strong, tapering, dark brown, nearly black, and armed with long black spines; trochanters clothed above and at sides with long, coarse black hairs, and below with short yellowish pubescence; the femurs, tibiæ, metatarsi and tarsi clothed entirely with black hairs. Relative lengths: 1, 2, 4, 3.

Palpi yellowish-brown, moderately long, clothed with black hairs, and armed with long dark brown spines.

Falces moderately long, arched, apices divergent; the prevailing colour is yellow, except at the tips, where the outer margins are nearly black; the upper margin of the furrow of each falx is armed with a series of four teeth, and the lower three; fangs dark brown, wine-red at tips.

Maxillæ short, broad, strong, arched, divergent, clothed with long, coarse black hairs or bristles; black, with exception of inner margins which are pale yellowish.

Labium short, broad, arched, black, with the exception of the apex which is pale yellowish.

Sternum shield-shaped, tuberculated laterally, arched, black, with yellow median, longitudinal bar, surface clothed with long black hairs and bristles.

Abdomen oblong-ovate, arched, boldly projecting over base of cephalothorax; anterior extremity yellow, thence dark brown, almost black, to posterior extremity where there is a pale U-like mark, the lines of which are somewhat uneven; in addition to this, there is a series of rather large and small pale yellowish and white spots distributed over the superior surface and sides; the two abdominal tubercles are small and obtuse, black at the inner angles, and pale yellowish on the outer; the sides are black, with uneven yellowish markings near the anterior extremity; inferior surface dark reddish-brown, but relieved by two narrow lateral, longitudinal, slightly curved yellowish lines, between which there is a series of eight pale yellowish spots, arranged in pairs.

Epigyne a small, transversely oval, dark brown tubercular eminence, the upper lip of which is sinuous and overhanging; the lower lip is also sinuous in outline and deeply cleft at the centre; the groove is deep and transverse.

Loc.—Neneba, Mount Scratchley, at between 4,000ft. and 5,000ft.; November, 1896.

Genus ARANEUS, Clerck.

28. ARANEUS TRIGONUS, L. Koch.

Loc.—Panneata.

29. ARANEUS PUNCTIGERA, Dol., var. VATIA (?), Thor.

Loc.—Neneba, Mount Scratchley, at between 4,000ft. and 5,000ft.; November, 1896.

30. ARANEUS BRISBANÆ, L. Koch.

Loc.—Neneba.

31. ARANEUS DEPRESSUS, sp. nov.

(Plate VII., figs. 6, 6a.)

♀. Cephalothorax 3·3 mm. long, 3 mm. broad; abdomen 5·3 mm. long, 4·2 mm. broad.

Cephalothorax dark mahogany-brown, convex, sparingly clothed with long, hoary hairs or bristles. *Caput* high, arched, obtusely truncated in front, sparingly clothed at sides and base with long, hoary hairs. *Clypeus* broad, arched, sparingly clothed with long, hoary hairs; median depression and radial grooves indistinct.

Eyes glossy, black, and arranged in three groups; the median series are seated on a somewhat quadrangular tubercular eminence, and of these the anterior pair are separated from each other by a space equal to fully twice their individual diameter; the lateral pairs are minute, and seated obliquely upon small tubercles, but are not contiguous.

Legs long, strong, tapering, dark brown, with yellowish annulations, clothed with yellowish hairs, and armed with long and strong black spines. Relative lengths : 1, 2, 4, 3.

Palpi similar in colour, clothing, and armature to legs.

Falces strong, slightly divergent at tips, glossy brown, sparingly clothed with hoary hairs; each margin of the furrow of each falx is armed with a row of three strong teeth.

Maxillæ strong, broad, moderately arched, divergent, of a tawny colour with the exception of the inner margins, which are pallid; the sides sparingly clothed with short, hoary hairs.

Labium short, broad, rounded off at apex; colour tawny, apex pallid.

Sternum shield-shaped, glossy, brown, moderately arched, and sparingly clothed with hoary hairs.

Abdomen ovate, boldly projecting over base of cephalothorax, arched in front, depressed at centre; superior surface of a saffron-yellow, with a median longitudinal bar, which is narrow in front, but gradually widens out towards the centre, and then narrows off again; in addition to this, there is also a series of irregular dark brown streaks and markings at anterior extremity; abdominal punctures deep and dark brown; at posterior extremity there are two prominent tubercular eminences placed one behind the other; sides dark brown, almost black, sparingly clothed with yellowish pubescence; inferior surface of a dull, dirty brown tint,

relieved by two large lateral patches of white situated about midway between epigyne and spinners.

Epigyne a dark brown, glossy, tubercular eminence, from the anterior angle of which there is a narrow, elongated, obtuse-pointed protuberance, the latter being directed towards the spinners.

Loc.—Neneba, 9th November, 1896.

Genus *GASTERACANTHA*, Sundl.

32. *GASTERACANTHA TENIATA*, Walck.

Loc.—Vanapa Valley; March, 1897.

33. *GASTERACANTHA CRUCIGERA*, Bradley.

Loc.—Boirave, at 1,500ft.; July, 1896.

34. *GASTERACANTHA HEPATICA*, L. Koch.

Loc.—Panneata.

Family THOMISIDÆ.

Subfamily MISUMENINÆ.

Genus *MISUMENA*, Latr.

35. *MISUMENA PUSTULOSA*, L. Koch.

Loc.—Rossel Island, Louisiade Group; 11th July, 1890.

36. *MISUMENA BIPUNCTATA*, sp. nov.

(Plate VII., fig. 7.)

♀. Cephalothorax 3·4 mm. long, 3·5 mm. broad; abdomen 6·5 mm. long, 9·5 mm. broad.

Cephalothorax arched, broader than long, yellow-brown with a broad median longitudinal patch of pale yellow, and dark brown wavy striations commencing at ocular area; of these the two lateral bars run to near the base of the cephalothorax, and the inner bars, of which there are four, terminate at junction of cephalic and thoracic segments. *Caput* finely granulated, receding, truncated in front. *Clypeus* arched, broad, finely granulated. *Marginal band* rather broad, pale yellowish.

Eyes dark brown, equidistant, disposed in two rows, of which the anterior is strongly recurved and the posterior only slightly so; the anterior lateral eyes are the largest of the group.

Legs robust, yellow-brown, covered with brown granulations, and clothed with yellowish pubescence; the anterior femora are armed with a series of oblique spines; the tibiæ and metatarsi are also furnished with strong spines; claws serrated near their base. Relative lengths: 2, 1, 3, 4.

Palpi short, robust, similar in colour and armature to legs.

Falces robust, convex, yellow-brown, and clothed rather sparingly with long, coarse, yellow hairs.

Maxillæ yellowish, long, robust, convex, slightly constricted at their centre; apices inclining inwards.

Labiæ long, coniform, convex, somewhat darker than maxillæ.

Sternum cordate, convex, glossy, yellow and sparingly hairy.

Abdomen sub-pentagonal, broader than long, obtusely truncated in front, slightly projecting over base of cephalothorax; it is narrowest in front, but widens out boldly until a distance of four millimètres has been obtained, from whence it retreats posteriorly; at a distance of 4·7 mm. or thereabouts there are two large black spots arranged in a transverse line and separated from each other by a space equal to about two millimètres; the superior surface and sides are pale yellow, covered with brown granulations, and clothed with very fine yellowish pubescence; inferior surface convex, pale yellowish, with whitish reticulations, and sparingly clothed with very short yellowish pubescence.

Epigyne a small, bilobed, tubercular eminence.

Loc.—Neneba; 9th November, 1896.

Genus D I Æ A, Thor.

37. D I Æ A 7-PUNCTATA (?), L. Koch.

Loc.—Neneba; 9th November, 1896.

This specimen was rather too immature to determine with safety, but it is probably a female of *Dicæa 7-punctata*, L. Koch.

38. *DIÆA* *OCELLATA*, sp.nov.

(Plate VII., figs. 8, 8a.)

♀. Cephalothorax 1·8 mm. long, 1·5 mm. broad; abdomen 4·6 mm. long, 2 mm. broad.

Cephalothorax pale yellow, faintly tinged with green, broad, arched, glossy, devoid of hairs. *Caput* arched, obtusely truncated in front, pale yellowish, faintly suffused with green at base, and with pink within the ocular region; normal grooves faintly distinct. *Clypeus* broad, pale yellowish, faintly suffused with green, median depression and radial grooves barely discernible. *Marginal band* narrow.

Eyes black and arranged in two strongly recurved series; the median eyes of each series are the smallest of the group; lateral eyes elevated on small but prominent tubercles of a light greyish colour.

Legs moderately strong, tapering, yellowish, moderately clothed with very fine and short yellowish hairs, and armed with moderately strong spines. Relative lengths: 1, 2, 4, 3.

Palpi short, similar in colour, clothing, and armature to legs.

Falces short, arched, glossy, pale yellowish.

Maxillæ pale yellowish, long, arched, apices inclining inwards.

Labium concolorous, arched, long, conical.

Sternum concolorous also, arched, glossy, and nearly round.

Abdomen oblong-ovate, arched, moderately projecting over base of cephalothorax, pale yellowish, ornamented in the median line with a series of nine large discs of pale green, which, with the exception of the first one, are arranged in pairs; in addition to these there are numerous smaller discs of the same colour, together with a series of dark brown spots, distributed over the superior surface; sides and inferior surface pale yellow.

Epigyne a small tubercular eminence of a yellowish tint.

Loc.—Neneba; November, 1896.

Obs.—This species closely approaches *Diæa circumlita*, L. Koch, in general appearance, but differs from the latter both by the general shape and formation of the epigyne.

Genus *Xysticus*, C. Koch.39. *Xysticus obscurus*, sp. nov.

(Plate VII., fig. 9.)

♀. Cephalothorax 1.5 mm. long, 1.5 mm. broad; abdomen 2.3 mm. long, 1.7 mm. broad.

Cephalothorax as broad as it is long, convex, smooth, dark brown, glossy. *Caput* obtusely truncated in front, sparingly clothed with short hairs; slightly depressed between the four median eyes. *Clypeus* broad, arched, sparingly clothed with short hairs. *Marginal band* narrow.

Eyes black, arranged in two recurved rows; each eye is widely separated from its neighbour, equidistant, and the four comprising the median group are much the smallest of the series, and are so arranged as to form a trapezium.

Legs strong; the first and second pairs are much the longest, strongest, and darkest in colour; the trochanters are dark and similar in colouration to the cephalothorax; the patella of each is long, strong, yellow-brown above and at the base, but dark brown at the sides and extremity; the femoral joints, tibiae, and metatarsi are each yellow-brown with a broad, dark, median annulation; they are armed with long, strong, dark brown spines, and clothed with long, coarse, dark hairs; the third and fourth pairs are yellowish, with dark brown annulations at the joints, but similar in clothing and armature to the anterior pairs; tarsal claws long, strong, curved, and armed with small teeth. Relative lengths: 1 = 2, 4, 3.

Palpi moderately long, strong, and similar in colour and armature to the legs; the first two joints are pale yellowish, the remainder reddish-brown.

Falces dark brown, glossy, moderately long, powerful, arched.

Maxillæ long, dark brown, arched, inclining inwards.

Labium concolorous, long, coniform, arched, rounded off at apex.

Sternum long, shield-shaped, smooth, moderately arched, glossy.

Abdomen ovate, arched, moderately overhanging base of cephalothorax; superior surface dark brown, mottled with yellow; inferior surface yellow.

The *epigyne* is situated in a broad and deeply-grooved recess.

Loc.—Neneba; November, 1896.

Family CLUBIONIDÆ.

Subfamily SPARASSINÆ.

Genus HETEROPODA, Latr.

40. HETEROPODA SALACIA (?) ♂, L. Koch.

Loc.—Boirave, at 1,500ft.

Genus SAROTES, Sund.

41. SAROTES PROCERUS, L. Koch; (immature).

Loc.—Tamata Station, Mambare River.

42. SAROTES SIMILARIS, sp.nov.

(Plate VII., fig. 10.)

♀. Cephalothorax 6.6 mm. long, 5.7 mm. broad; abdomen 9.5 mm. long, 5.9 mm. broad.

Cephalothorax convex, clothed with short yellowish pubescence, dark brown with yellowish markings. *Caput* arched. *Clypeus* broad, radial grooves distinct, median groove or depression wedge-shaped, broadest in front; at the base of cephalothorax there is a broad, slightly curved transverse band of pale yellow. *Marginal band* broad.

Eyes black, arranged in two recurved rows of four each; the two median eyes of the anterior row are the smallest of the series; the lateral anterior eyes and those of the anterior row are all the same size; the anterior median eyes are separated from each other by about twice their individual diameter, and from their lateral neighbours by about one diameter; the median eyes of the second row are separated from each other by a space equal to once their individual

diameter, and from their lateral neighbours by fully two diameters; the space intervening between the two rows is equal to twice the diameter of one of the larger eyes.

Legs long, robust, moderately clothed with yellowish hairs, and armed with long strong spines; trochanters annulated with yellow and dark brown; femora brown, sparingly hairy; tibiæ annulated with dark brown and yellow-brown, and clothed rather thickly with yellowish hairs; metatarsi yellowish-brown; tarsi furnished with scopulæ, the claws long and serrated. Relative lengths: 2, 1, 4, 3.

Palpi yellowish-brown, thickly clothed with long coarse hairs; armature similar to legs.

Falces long, robust, yellow-brown, with four longitudinal dark brown bars commencing at base, and continuing to near the apex; the inner margins of each falx are furnished with scopulæ of long yellowish hairs, and the furrows are furnished with strong black teeth, the lower having 4, and the upper 2.

Maxille long, strong, arched, slightly compressed at the middle, pale yellow, moderately hairy, and the inner apical margins furnished with long yellowish scopulæ.

Labium longer than broad, concolorous.

Sternum shield-shaped, pale yellow, clothed with moderately long coarse hairs.

Abdomen ovate, hairy; superior surface yellowish-grey with obscure dark markings similar to those of *S. procerus*, L. Koch; sides and inferior surface yellowish-grey.

Epigyne small, convex, bilobed.

Loc.—Neneba, Mount Scratchley, at between 4,000ft. and 5,000ft.; and Boirave, at 1,500ft.; July, 1896.

Family CLUBIONIDÆ.

Subfamily CLUBIONINÆ.

Genus CLUBIONA, Walck.

43. CLUBIONA VACUUA, L. Koch; (immature).

Loc.—Neneba, Mount Scratchley.

44. CLUBIONA ALVEOLATA (?), L. Koch; (immature).

Loc.—Neneba, November, 1896.

45. CLUBIONA GIULIANETTI, sp. nov.

(Plate VII., figs. 11, 11a.)

♂. Cephalothorax 4 mm. long, 2·8 mm. wide; abdomen 4·9 mm. long, 2·5 mm. wide.

Cephalothorax ovate, arched, yellow, sparingly pubescent. *Caput* yellowish, arched, obtusely truncated in front, sloping downwards towards ocular area, where the tint is dark brown; a thin dark brown longitudinal thread-like median line runs down the centre from near the ocular area, and terminates at the central median depression of the clypeus; normal grooves faintly distinct. *Clypeus* yellowish, arched, radial grooves faintly distinct. *Marginal band* narrow.

Eyes of a pearl-grey lustre with black rings arranged in two rows, of which the anterior is the shortest, and is recurved; the eyes of the latter are of equal size, and are separated from each other by a space equal to once their individual diameter; the posterior row is procurved; the two median eyes are separated from each other by a space equal to rather more than twice their individual diameter, and each again from its lateral neighbours by about two diameters.

Legs long, moderately strong; trochanters yellowish, but the other joints are somewhat darker; each limb is clothed with fine yellowish hairs, and armed with long dark brown spines; tarsal claws armed near their base with four long teeth. Relative lengths: 4, 1, 2, 3.

Palpi yellowish, clothed with pale yellowish hairs; copulatory organ long, narrow, inflated, and somewhat complicated in structure; upper side yellowish, and thickly clothed with short coarse hairs.

Falces long, strong, arched, divergent at apex, reddish-brown, sparingly clothed with long coarse black hairs, furrows armed with teeth.

Maxillæ long, arched, converging inwards, reddish-brown; apices thickly fringed with long coarse hairs.

Labium concolorous, longer than broad, apex obtusely truncated.

Sternum long, narrow, somewhat shield-shaped, yellowish, glossy, smooth, moderately convex, sparingly clothed with colourless hairs.

Abdomen oblong-ovate, moderately projecting over base of cephalothorax, yellowish, moderately clothed with short colourless hairs; seated about one-third the length of the abdomen there are two dark circular spots or depressions, and these are separated from each other by a space equal to twice their individual diameter; below these, again, there are two other depressions slightly larger than the foregoing, and separated from them by a space equal to about three times their individual diameter; from the first two depressions a delicate tracery proceeds, the lines of which unite immediately before the second pair of spots, and proceeds from thence in a single line towards the spinners; the sides and inferior surface are lighter in colour than the superior.

♀. Cephalothorax 4·8 mm. long, 3·5 mm. broad; abdomen 6·3 mm. long, 3·6 mm. broad.

Cephalothorax longer than broad, yellowish, sparingly pubescent.

Caput arched, obtusely truncated in front, yellowish at base, yellow-brown at apex, dark brown in front; there is also a thread-like median line commencing near the apex and terminating at the central median depression of the clypeus. *Clypeus* arched, radial grooves faintly distinct.

Eyes similar in arrangement to those of the male.

Legs long, strong, hairy, and armed with long strong spines; trochanters and femora yellowish, tibiæ and metatarsi yellow-brown. Relative lengths: 4, 1, 2, 3.

Palpi similar in colour, clothing and armature to legs.

Falces long, robust, arched, divergent at apex, dark mahogany brown, sparingly hairy.

Maxillæ long, robust, arched, glossy, of a rich mahogany-brown, the surface moderately pubescent, inner apical edges furnished with scopulæ.

Labium longer than broad, obtusely truncated at apex, concolorous.

Sternum long, narrow, somewhat shield-shaped, yellow, glossy, sparingly pubescent.

Abdomen oblong-ovate, convex, hairy, moderately projecting over base of cephalothorax; the abdominal punctures are similar to those of the ♂, but the delicate tracery noticeable in the latter is not present in ♀ examples; the sides and inferior surface pale yellowish.

Epigyne large, slightly raised, arched, bilobed, yellowish-brown at base, dark brown above.

Loc.—Neneba, 9th November, 1896.

Genus CHIRACANTHIUM, C. Koch.

46. CHIRACANTHIUM LONGIMANUM (?), L. Koch.

Loc.—Neneba, 9th November, 1896.

Subfamily LIOCRANINÆ.

Genus ARGOCTENUS, L. Koch.

47. ARGOCTENUS DE VISI, sp. nov.

(Plate VII., fig. 12.)

♀. Cephalothorax 8.3 mm. long, 5.7 mm. broad; abdomen 8.2 mm. long, 6.3 mm. broad.

Cephalothorax dark reddish-brown, obovate, clothed laterally with dark greyish pubescence. *Caput* obtusely truncated in front, but not elevated above the level of the clypeus, clothed in front and at sides with dark greyish pubescence. *Clypeus* broad, glossy, smooth, upper surface rather flat, sides deep and rounded off; the median depression is present in the form of a rather short, narrow, but distinct transverse groove; radial grooves indistinct. *Marginal band* narrow.

Eyes arranged in four series = 2, 2, 2, 2; those forming the front row are separated from each other by a space equivalent to once their individual diameter; those of the second row are sensibly larger than the latter, and are also separated from each

other by a space equal to about once their individual diameter; the minute lateral eyes are seated nearly on a line with those of the second row, but are oblique; the posterior and lateral eyes are equal in size to those of the anterior row, and are separated from each other by a space equal to 2.2 mm.

Legs long, strong, and tapering, dark brown, hairy, and armed with long and strong spines; the metatarsi and tarsi of the anterior pairs are furnished with scopulæ; tarsal claws strong, and furnished with three small teeth. Relative lengths: 4, 1, 2, 3.

Palpi moderately long, similar in colour and armature to legs.

Falces black, long, strong, clothed with long, coarse, grey hairs; apices divergent; the margins of the furrow of each falx are armed with three strong teeth.

Maxilla arched, dark brown, thickly clothed with coarse hairs.

Labium concolorous, hairy, broader towards apex than at base, arched, apex obtusely truncated.

Sternum reddish-brown, shield-shaped, moderately arched; truncated in front, glossy, and clothed laterally with dark brown pubescence.

Abdomen obovate; superior surface and sides dull yellowish-brown, pubescent; inferior surface concolorous, but relieved by two uneven lateral lines of dull white, gradually tapering towards the posterior extremity; within these lines there is a series of six dull white spots, arranged in three series of two each; of these the pair near epigyne are the widest apart, and the third and last pair nearly touch each other.

Epigyne a small tubercular eminence, dark brown laterally, but reddish-brown at the centre and in form somewhat like an inverted horse-shoe.

Loc.—Tamatave Station, Mambare River.

Family LYCOSIDÆ.

Genus DOLOMEDES, Latr.

48. DOLOMEDES ALBO-CINCTUS, Dol.

Loc.—Panneata.

Genus *DENDROLYCOSA*, Dol.

- 49.
- DENDROLYCOSA DOLOMEDES*
- (?), Dol.

Loc.—Neneba, 9th November, 1896.

- 50.
- DENDROLYCOSA EXILIS*
- , Thor.; (immature).

Loc.—Neneba, 9th November, 1896.Genus *TRICHOSA*, C. L. Koch.

- 51.
- TRICHOSA PULCHELLA*
- ♂ (?), Thor.

Loc.—Neneba, 9th November, 1896.Family *ATTIDÆ*.Genus *ICIUS*, E. Sim.

- 52.
- ICIUS VIDUUS*
- , L. Koch.

Loc.—Boirave, at 1,500ft., July, 1896; Tamata Station, Mambare River.Genus *TAPINATTUS*, Thor.

- 53.
- TAPINATTUS MELANOGNATHUS*
- , Luc.

Loc.—Neneba, November, 1896.Genus *MÆVIA*, C. L. Koch.

- 54.
- MÆVIA VIRIDI-FASCIATA*
- , Dol.

Loc.—Boirave, at 1,500ft., July, 1896.Genus *COCALUS*, C. Koch.

- 55.
- COCALUS CONCOLOR*
- , C. Koch.

Loc.—Neneba, November, 1896.Genus *ATTUS*, E. Sim.

- 56.
- ATTUS ALBO-PILOSUS*
- , sp. nov.

(Plate VII., fig. 13.)

♂. Cephalothorax 1·9 mm. long, 1·7 mm. broad; abdomen 2·1 mm. long, 1·7 mm. broad.

Cephalothorax black, broad. *Caput* obtusely truncated in front, minutely granulated, surface sparingly furnished with fine white hairs; hairs surrounding anterior eyes rather long and white; there are also a few short white hairs both between and below the lateral eyes; the cephalic segment is nearly vertical laterally and has the superior surface flat; cephalic and thoracic segments distinct; there is also a rather deep median indentation at the junction of the two segments, and just below this a small tuft of white hairs; the thoracic segment declines somewhat abruptly; it is clothed laterally with short white hairs.

Eyes arranged in three rows, and nearly forming a square, the quadrangle being rather longer than broad; the four forming the anterior row are gently procurved, and of these the two median eyes are distinctly the largest; the two comprising the second row are exceedingly minute, and are rather closer to the anterior lateral eyes than to the posterior row; those constituting the third row are slightly larger than the lateral eyes of the anterior series.

Legs moderately long, strong, dark brown, with the exception of the metatarsi and tarsi, which are yellow-brown; the first pair are considerably the strongest; all are armed with strong dark brown spines and clothed with rather long white hairs. Relative lengths: 1, 4, 2, 3.

Palpi short, dark brown, similar in clothing and armature to legs; genital bulbs small.

Falces seated well back behind the frontal margin, not divergent at apex, dark brown, clothed with long, coarse, white hairs.

Maxille dark brown, apices divergent, sparingly clothed with short hoary hairs.

Labium concolorous, short, rounded off at apex.

Sternum concolorous also, arched, shield-shaped, and clothed with long, coarse, hoary hairs.

Abdomen ovate, arched, moderately projecting over base of cephalothorax, dark brown, almost black; at anterior extremity there is a small tuft of white hairs; near posterior extremity, and situated laterally, there are two other prominent tufts of white

hair; in addition to these, there are also a few short white hairs scattered over superior surface and at the sides; inferior surface dark brown, sparingly clothed with hoary hairs.

[When immersed in alcohol the white hairs are not visible.]

Loc.—Tamatava Station, Mambare River.

Genus PLEXIPPUS, C. Koch.

57. PLEXIPPUS LATERICIUS, Thor.

Loc.—Tamatava Station, Mambare River.

58. PLEXIPPUS SEX-MACULATUS (?), C. Koch.

Loc.—Boirave, at 1,500ft., July, 1896.

Genus BATHIPPUS, Thor.

59. BATHIPPUS MONTROUZIERI, Luc., var. PAPUANUS, Thor.

Loc.—Rossel Island, 11th July, 1890.

60. BATHIPPUS DILANIANS, Thor.

Loc.—Neneba, November, 1896.

61. BATHIPPUS MACROPROTOPUS, Pocock.

Loc.—Neneba, November, 1896.

Genus HASARIUS, E. Sim.

62. HASARIUS LAUTUS, Keys.; (immature).

Loc.—Neneba, November, 1896.

Genus CYRBA, E. Sim.

63. CYRBA PLANIPUDENS (?) Karsch; (immature).

Loc.—Neneba, November, 1896.

64. CYRBA SQUALIDA (?) L. Koch; (immature).

Loc.—Neneba, November, 1896.

Obs.—This specimen, although differing somewhat in ornamentation from that figured by Koch, appears to approach the latter so closely that I am compelled to regard it as, if not the actual species, at least a variety. Unfortunately the animal is immature,

consequently determination is difficult, and at the best unsatisfactory.

Genus *COCORCHESTES*, Thor.

65. *COCORCHESTES RUFIPES* ♂, Thor.

Loc.—Boirave, at 1,500ft., July, 1896.

Order **SCORPIONIDÆ.**

Family **PANDINOIDÆ.**

Subfamily **PANDININI.**

Genus *HORMURUS*, Thor.

66. *HORMURUS CAUDICULA*, L. Koch.

Loc.—Boirave, at 1,500ft., July, 1896; Neneba (immature specimen), November, 1896.

Order **PEDIPALPI.**

Suborder **AMBLYPYGI.**

Family **PRYNOIDÆ.**

Genus *PHRYNUS*, Latr.

67. *PHRYNUS GRAYI*, P. Gerv.

Loc.—Boirave, at 1,500ft., July, 1896.

Obs.—Two specimens of this interesting species were obtained, and these, when compared with Walckenaer's description, appear so close that there can be little doubt as to their identity.

The line of demarcation drawn by Wallace in his "Geographical Distribution of Animals," based chiefly on vertebrates is hardly supported by the testimony of the invertebrate fauna. The distinguished author, as every scientific student knows, held that the fauna of the Philippine Islands was distinct from that of Papua. The former he included in the Indo-Malayan region, and the latter in the Austro-Malayan. In dealing with "The Land Molluscan Fauna of British New Guinea," Hedley says:—"Wallace's line, so conspicuous a severance among the vertebrates, appears to be quite blotted out, when the distribution of animals is regarded from a molluscan standpoint. No sharp break occurs

between the Malayan fauna as exemplified in Borneo or the Philippines and in New Guinea. All the characteristic Malayan forms, *Atopos*, *Xesta*, *Helicarion*, *Microcystina*, *Trochomorpha*, *Obba*, *Chloritis*, *Cochlostyla*, *Pupina* and *Diplommatina* are common to both regions. The Solomon Islands, Fiji, Samoa, etc., appear by the light of the Papuan shells to be inhabited by an eastern extension of this Malayan fauna, which has also overflowed into Queensland.* The extension of *Phrynus grayi* from the Philippines to the Papuan region, would therefore appear to be in accordance with the theory put forward by Hedley.

Order OPILIONES.

Sub-order OPILIONES PLAGIOSTETHI.

Genus G A G R E L L A, Stol.

68.—GAGRELLA XANTHOSTOMA, Thor.

Loc.—Boirave, at 1,500ft., July, 1896.

EXPLANATION OF PLATE.

PLATE VII.

- Fig. 1. —*Idiommata crassipes*, eyes.
 Fig. 2. —*Antrochares macgregori*, eyes.
 Fig. 2a. — " " maxillæ and lip.
 Fig. 3. —*Uloborus flavolineatus*.
 Fig. 3a. — " " side view.
 Fig. 4. —*Cyrtophora simoni*.
 Fig. 4a. — " " epigyne.
 Fig. 5. — " *albopunctata*.
 Fig. 6. —*Araneus depressus*.
 Fig. 6a. — " " epigyne.
 Fig. 7. —*Misumena bipunctata*.
 Fig. 8. —*Diva ocellata*.
 Fig. 8a. — " " epigyne.
 Fig. 9. —*Xysticus obscurus*, epigyne.
 Fig. 10. —*Sarotes similaris*.
 Fig. 11. —*Chubiona giulianetti*, ♀.
 Fig. 11a. — " " epigyne.
 Fig. 12. —*Argoctenus de risi*, eyes.
 Fig. 13. —*Attus albopilosus*, ♂ copulatory organ.

* P.L.S.N.S.W. Vol. vi. (Series 2nd), p. 693.